



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Kaplan et al.

Serial No.: 09/753,815

Group Art Unit: 3426

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Examiner: Cuevas, P.

For: TORQUE RING

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Box RCE

Assistant Commissioner for Patents

Washington, D.C. 20231

REPLY PURSUANT TO 37 C.F.R. § 1.116

Dear Sir:

This paper is responsive to the Office Action mailed December 4, 2002.

AMENDMENT

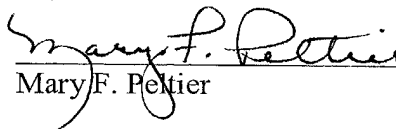
IN THE CLAIMS:

Please cancel claims 1-5, 8-13 and 16-17.

Please add the following new claims:

CERTIFICATE OF EXPRESS MAILING

I hereby certify that this **Reply Pursuant to 37 C.F.R. § 1.116** is being deposited with the United States Postal Service as Express Mail, No. EU843550316US postage prepaid, in an Express Mail envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on this 4th day of March, 2003.


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22. (New) A variable reluctance motor, comprising:
a stationary bearing race;
a rotatable bearing race;
a bearing member disposed between said stationary and rotatable bearing races;

a stator having a plurality of individual phase segments formed in an annular array, each segment of said plurality of individual phase segments being separately coupled to said stationary bearing race and having a conductor disposed about said segment and each segment of said plurality of individual phase segments defining a plurality of stator pole teeth; and,

a rotor coupled to and suspended from said rotatable bearing race, said rotor defining a plurality of radially extending rotor pole teeth opposing said stator pole teeth.

23. (New) The variable reluctance motor of claim 22 wherein at least one segment of said plurality of individual phase segments is suspended from said stationary bearing race.

24. (New) The variable reluctance motor of claim 23 wherein said at least one segment is vertically suspended underneath said stator bearing race.

25. (New) The variable reluctance motor of claim 22 wherein said rotor is vertically suspended underneath said rotor bearing race.

26. (New) The variable reluctance motor of claim 22 wherein at least one segment of said plurality of individual phase segments defines a first radially extending stator pole about which said conductor is disposed.

27. (New) The variable reluctance motor of claim 26 wherein said at least one segment of said plurality of individual phase segments defines portions of second and third radially extending stator poles.

28. (New) The variable reluctance motor of claim 22 wherein at least one segment of said plurality of individual phase segments is disposed on both a radially inner side of said rotor and a radially outer side of said rotor.

29. (New) The variable reluctance motor of claim 28 wherein said stator pole teeth and said rotor pole teeth face each other across two concentric annular gaps.

30. (New) The variable reluctance motor of claim 22 wherein at least one segment of said plurality of individual phase segments has a laminated core.

31. (New) The variable reluctance motor of claim 22 wherein said rotor includes a plurality of laminations.

32. (New) An aimable ordinance platform for a defense vehicle, comprising:

a stationary bearing race coupled to a hull of said defense vehicle;

a rotatable bearing race coupled to a turret of said defense vehicle;

a bearing member disposed between said stationary and rotatable bearing races; and,

a variable reluctance motor comprising:

a stator having a plurality of individual phase segments formed in an annular array, each segment of said plurality of individual phase segments being separately coupled to said stationary bearing race and having a conductor disposed about said segment and each segment of said plurality of individual phase segments defining a plurality of stator pole teeth; and,

a rotor coupled to and suspended from said rotatable bearing race, said rotor defining a plurality of radially extending rotor pole teeth opposing said stator pole teeth.

33. (New) The aimable ordinance platform of claims 32 wherein at least one segment of said plurality of individual phase segments is suspended from said stationary bearing race.

34. (New) The aimable ordinance platform of claims 33 wherein said at least one segment is vertically suspended underneath said stator bearing race.

35. (New) The aimable ordinance platform of claims 32 wherein said rotor is vertically suspended underneath said rotor bearing race.